

Name.	R.A.	Dec.	Date.	Position Angle.	Dis- tance.	Nights.
	^h ^m	[°] [']		[°]	"	
λ Cygni O Σ 413	... 20 43	+ 36 8	1890.734	77.5	...	2
			2.706	73.4	...	2
			3.588	71.8	0.7	30
			5.714	73.8	0.6	3
			6.871	70.5	0.6	5
			7.564	69.1	0.6	5
			8.754	68.9	0.6	11
			1900.648	64.8	0.6	18
ϵ Equulei Σ 2737	... 20 54	+ 3 55	1896.842	284.6	0.7	3
			8.746	282.2	0.8	11
			1900.652	289.8	0.6	10
61 Cygni Σ 2758	... 21 2	+ 38 16	1895.597	124.0	20.3	1
			1900.857	124.9	22.0	7
δ Equulei O Σ 535	... 21 10	+ 9 37	1896.842	201.3?	...	3
			8.775	201.8	...	7
52 Pegasi O Σ 483	... 22 54	+ 11 12	1896.875	218.6	1.0	5
			7.663	219.2	1.0	3
			8.870	218.5	1.0	7
			1900.637	220.4	1.0	4
85 Pegasi β 85	... 23 57	+ 26 34	1896.875	208.0	0.8	5
			7.638	223.3	0.7	4
			8.816	234.4	0.7	8

Observations of Mars made at Mr. Edward Crossley's Observatory, Bermerside, Halifax, during the Opposition of 1900-1901.
By Joseph Gledhill.

The following observations were made with the 9-inch photo-visual object-glass of the Cooke Equatorial. The powers used were 240 and 330. The observing conditions were almost invariably poor, and never really good.

1901 February 11, 9^h. The Kaiser Sea was about central, and formed a very striking feature; its extreme northern portion, where it is joined to the western end of Nasmyth Inlet, was not seen. Nasmyth Inlet and Lassell Sea were often but not steadily seen. The dark Knobel Sea lay near the eastern limb. The N. polar cap was of course a very prominent feature;

its surface and southern edge were carefully examined, but no markings or irregularities of outline were seen. The beautiful ruddy colour of Beer Continent was well seen, and it extended quite up to the eastern limb of the planet. On this and every other clear night the terminator was very frequently examined for protuberances or projections, but none were seen.

The details of the features about the S. pole were never well made out during this opposition.

No markings of any kind were ever seen in the central portions of Beer Continent or Secchi Continent.

February 13. Much motion. Saw all that was seen on the 11th and saw it much better. Delambre Sea lay close to the western limb. So also on February 14.

February 17. Clear night ; much motion ; definition as bad at midnight as at 9^h. The Kaiser Sea was about central at 11¹/₂^h. The features seen were as above, with the exception of the beautiful warm colour of the Beer Continent, which was not seen. Main Sea was often looked for but never seen.

March 12. Much motion and flare ; planet examined at short intervals for some six hours. Knobel Sea dark and very prominent. The curved band of seas to the N. of the S. pole was also an easy feature, but details could not be seen. The S. end of Knobel Sea extended as far S. as the centre of the disc. The curved broad band of seas was greenish.

March 16. Fair definition to-night. At 8^h several features were pretty well seen, and so remained for hours. The broad band round the S. pole was darkest at its eastern end, *i.e.* De la Rue Ocean ; then, to the west, was the lighter Phillips Island. The region round the S. pole was nearly as bright as Beer Continent, which occupied the western half of the central part of the disc. Dawes Forked Bay and Burton Bay were dark as usual. The western limb was much brighter than the eastern ; the darkest portion of the limb was where De la Rue Ocean touched it. Knobel Sea lay to the east of the central meridian, and extended from near the N. polar cap to about the equator of the disc ; it has always, during this opposition, been one of the darkest features visible. To the west of this sea lay two streaks, slanting from N.W. to S.E., viz. a branch of Delambre Sea and Lassell Sea ; these were faint markings, the latter being the darker of the two. There was a faint red glow over Beer Continent.

March 21, 8^h. The western edge or limb very bright ; nearly as bright as the N. polar cap ; this brightness extended inwards to a distance equal to about one-fifth of the radius of the planet. The eastern limb was not nearly so bright. The Kaiser Sea was a fine object, and lay just west of the central meridian. The N. edge of Herschel II. Strait was dark ; the

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region including Dawes Ocean was much brighter ; still brighter was Lockyer Land round the S. pole. The fine line joining the Kaiser Sea (its N. end) to the extreme western end of Nasmyth Inlet was seen occasionally. Nasmyth Inlet and a narrow band parallel to it to the north (an arm of Delambre Sea) were also seen. Beer Continent was of a uniform delicate red colour. At 10^h the Kaiser Sea lay far to the west of the central meridian, the dark N. edge of Herschel II. Strait (with the projecting bays), Nasmyth Inlet, Lassell Sea, the western part of Knobel Sea, and the arm of Delambre Sea were all well seen. No markings were seen on Beer Continent.

March 25, 8^h to 12^h. The features seen were about as on the 21st.

March 26, 9^h to 12^h. No warm colour E. or W. of the Kaiser Sea. The difference in brightness between the *p* and *f* limbs not at all marked as on the 21st.

March 28, 9½^h. The Kaiser Sea was between the central meridian and the *f* limb ; a dusky form lay close to *p* limb (Oudemans Sea ?), and on its eastern side there was a bright circular area (Fontana Land ?) ; the arm of Delambre Sea lay near (to N.W.) the N. end of the Kaiser Sea. A warm tint was spread over Herschel I. Continent. The *p* limb was bright ; the *f* limb less so.

March 31, 9½^h. The *p* limb very bright ; the *f* limb less so. The Kaiser Sea lay near the *f* limb. Fontana Land, Oudemans Sea, Delambre Sea, seen as on 28th. The surface near the S. pole (Lockyer Land ?) was bright.

April 1, 8^h. The bright circular Fontana Land was near (a little to E.) the central meridian and the centre of the disc. Oudemans Sea was close to the west side of Fontana Land, and was a narrow marking. The *p* limb was very bright, and the brightness extended one-fifth of the radius inwards ; the *f* limb was not bright. The curved band extending from limb to limb to the N. of the S. pole was dark ; it was Maraldi Sea, &c.

April 10. Definition very bad ; bright *p* limb as on the 1st. No warm colour on the disc.

April 11, 8^h. Bad definition ; little clear sky. The *p* limb was very bright, and the brightness extended inwards as on the 1st. The darkest marking was at the N. edge of the broad curved band near S. pole, and close to the *p* limb. The only other markings seen were two faint streaks lying one near the centre of the disc and one between that and the N. pole. The curved broad band near the S. pole was faint.

April 13, 8^h. The small dark marking on the N. edge of the faint curved band of seas, &c., near the S. pole was on the inner edge of the very bright lune which lay along the *p* limb.

The two faint slanting markings, one passing through the centre of the disc (from N.W. to S.E.), and the other to the N. of it and parallel to it, were again seen as on the 11th. Secchi Continent probably occupied all the middle region of the disc; its eastern portion had less warm colour than the rest.

April 23, 9^h. Knobel Sea, dark, extended from the N. polar cap to the centre of the disc. Airy Sea lay to the east of it, and Lassell Sea to the west. The forked bays in Herschel II. Strait were also seen. No warm colour on the disc. The bright Rosse Land not seen. The bright yellow region near the S. pole was probably Jacob Land. The *p* limb was not very bright; it was very bright on the 20th and 21st. On the 24th the same features were seen as on the 23rd.

April 25, 8^h to 9^h. Knobel Sea was near the *f* limb, and the Kaiser Sea lay close to the *p* limb as a dark line. When the Kaiser Sea entered the very bright lune along the *p* limb it disappeared or became very faint indeed. There was a very slight warm (ruddy) colour over the central portion of the disc.

April 26, 8^h and 9^h. The Kaiser Sea lay near the *p* limb and along it; the darkest part of the sea could be seen when quite inside the bright lune, which lay along the *p* limb. Knobel Sea was near the *f* limb. The greenish band of seas and lands to the N. of the S. pole was the only other feature seen. Lockyer Land was seen as a bright yellow region surrounding the S. pole. Later, the forked bays seen, dark; Lassell Sea glimpsed now and then.

April 30, 8^h and 9^h. The Kaiser Sea near the central meridian; its faint and narrow northern portion was near the centre of the disc. This narrow portion was not seen to extend up to the western end of Nasmyth Inlet. Nasmyth Inlet and Lassell Sea not well seen. Delambre Sea and Lockyer Land seen. Flammarion Sea, dark, was seen quite up to the *p* limb. Dawes Ocean extended quite up to the *f* limb without any loss of distinctness or tone.

Lyrids, 1901 April, observed at Cambridge.

By J. C. W. Herschel.

1. I watched for the *Lyrid* meteors on April 12 and 17 to 22 to see whether I could trace any motion of the radiant, as suspected by Mr. Denning. I noted down 60 meteors, of which 40 came from the neighbourhood of *Lyra*. Of these I have rejected 6 as not well enough noted to use, and 2 as being too far from the radiant (see § 4). The remaining 32 distribute themselves among six centres, as tabulated below.